

MODIS TECHNICAL TEAM MEETING

March 23, 1995

The MODIS Technical Team Meeting was chaired by Vince Salomonson. Present were Chris Justice, Dorothy Hall, Harry Montgomery, Steve Ungar, David Herring, Bill Barnes, Barbara Putney, Bruce Guenther, Wayne Esaias, Joann Harnden, Ed Masuoka, Dick Weber, and Locke Stuart.

1.0 SCHEDULE OF EVENTS

March 24	SBRC Quarterly Management Review
April 5-7	MODLAND Workshop
April 11-13	EDC Land DAAC Advisory Panel
April 15	Quarterly Reports Due to Barbara Conboy
April 18-19	Science Software Integration and Test Workshop
April 28	Level 2 Software Integration Review
April 30 - May 1	CEOS Meeting -- Best Western Hotel, Lanham, MD
May 2	MODIS Calibration Working Group -- Greenbelt Marriott
May 3 - 5	MODIS Science Team Meeting -- Greenbelt Marriott

2.0 MINUTES OF THE MEETING

2.1 MODIS Software Review

Salomonson said he heard the Software Review went well. He said two questions remain unanswered from EOSDIS' perspective: (1) How does the MODIS Team plan to integrate the Ocean Group's code from the University of Miami with the rest of the Team's code? and (2) Roughly how many lines of code will the MODIS Team produce? Masuoka responded that the number of lines of MODIS code is on the order of 100,000; about 10,000 of those will be written by SDST. Guenther added that MCST will also write about 10,000 lines.

Salomonson thanked SDST for conveying a positive impression of MODIS' software development progress.

Masuoka told the Team that the next big milestone for SDST is its Critical Design Review (CDR) on March 29, 1995. MCST will hold an internal SRR tomorrow. On April 4 and 5 MCST will host a 920 review of MCST tasks and budget conducted by Locke Stuart, John Bosworth, Bill Barnes, and Dick Weber.

2.2 Land Group Reports

Justice reported that he recently attended the AGU (American Geophysical Union) conference on biomass burning. At that meeting a request was put forward to expand MODIS' fire product to include information on the area burned as well as characteristics of the fire. Justice said he may work with

Yoram Kaufman to make the fire product more sophisticated to identify burned areas and then track those areas over time.

Justice stated that MODLAND is getting ready for the MODLAND-SDST meeting, to be held April 5 - 7 at GSFC.

2.3 Ocean Group Reports

Esaias told the Team that he prepared some definitions of calibration and validation, which he will use in preparing the Ocean Color Multisensor Intercalibration Plan for NASA Headquarters. He is circulating his definitions among the Science Team members to solicit feedback. Esaias stated that the report on that meeting will be available in draft form by Monday, March 27. He hopes to get an internal review from Salomonson and Michael King prior to submission to HQ.

2.4 SDST Reports

Masuoka reported that Bob Evans' concern regarding using the nested ISSCP grid set proposed by CERES at SWAMP was one of distribution to the Ocean community that uses different resolutions of the ISSCP grids in their existing models. In short, Masuoka said, Evans is comfortable with the 1-km grid, but would like to use additional grids beyond those proposed by SWAMP for cells larger than 1 km. Masuoka noted that SDST will begin designing software to implement ISSCP nested grids within the next month. He also noted that a guide describing the SDST Level 2 product input/output library will be distributed to the Science Team for comment on April 5, 1995.

Masuoka reminded the Team that Piers Sellers, EOS AM project scientist, asked for a two-page document by the end of March describing each instrument's validation efforts. Piers had identified Alan Strahler as the individual who would assemble the coordinated plans from all the instruments. Masuoka volunteered Al Fleig to coordinate the MODIS plan.

2.4.1 Algorithm Integration and Testing

Putney stated that she is planning to attend the upcoming algorithm integration and testing workshop at Hughes. One topic of discussion at that seminar will be what sort of input Science Team members will want to have in the testing process after launch when real MODIS data become available. She requested input from the Team. The workshop is scheduled for April 18 and 19. Masuoka added that the purpose of the seminar is to discuss how to port team members' software into the DAACs.

2.5 Headquarters Site Review

Ungar reported attending the 2-day NASA HQ site review conducted by Diane Wickland. Ungar gave a talk on simulated data at that review. Additionally, Wickland asked Ungar for a tutorial on the bowtie effect in MODIS, and how the Team plans to exploit the overlap of scans for calibration purposes.

2.6 MODIS Project Reports

Barnes announced that the first draft of MODIS input to the white paper on spacecraft maneuvers is due to be completed next week.

Weber reported that the MODIS engineering model (EM) is now in the thermal vacuum chamber; however, SBRC will continue to conduct ambient tests for another 2 weeks. Weber stated that the initial light scatter test results do not look good. SBRC suspects that the first dichroic causes the majority of the scattering problems because it has a lot of layers of filters, as well as some surface roughness, and there are some holes in it. Breault modeling indicates that 80 to 90 percent of the scattering problem is due to the first dichroic. SBRC, Breault, and GSFC will all continue to explore this problem. Weber said the good news, if SBRC is correct, is that they have found the most significant light scattering problem. The bad news is that it is the most complex dichroic and could, therefore, be difficult to correct. SBRC may have to use a less complex dichroic.

Weber reported that the SBRC Quarterly Review will be held tomorrow at GSFC. Lee Tessmer will provide all of the SBRC input.

Barnes added that he gave 34 copies of the new MODIS SRCA video to Barbara Conboy for distribution to the Science Team.

2.7 MCST Reports

Guenther reported that MCST is 5 weeks away from delivery of their beta software. He added that the latest version of the Calibration ATBD will be completed by April 7.

Guenther stated that MCST finished its analysis of the EM polarization results and reported their findings to MODIS Project and SBRC.

2.7.1 Day versus Night Mode

Salomonson asked if the plan is still to run MODIS 50-50 on day/night mode. Barnes responded affirmatively. There has, however, been no confirmation from the EOS and EOSDIS projects that this request has been baselined.

3.0 ACTION ITEMS

3.1 Action Items Carried Forward

1. *Dave Diner & Ed Masuoka:* MODIS and MISR need to settle on a protocol(s) to deal with Level 1 and Level 2 data sets to be passed between the two teams to produce joint products. Report at the next SWAMP Meeting.
2. *Guenther:* Report the modeled results of the 1,000K source for SBRC's integration and alignment collimator to the Technical Team.
3. *Weber:* Work with SBRC to obtain MODIS test data. [Test data are forthcoming from SBRC.]

4. *Fleig and Ungar*: Interact with the group leaders to develop a MODIS data simulation plan for review at the next Science Team Meeting. [Work on this item is still in progress.]